

REMARKS/ARGUMENTS

Reconsideration of the application, as amended, is respectfully requested.

Status of Claims

Claims 1-8 are pending, with claim 1 being the only independent claim. Claims 1 and 2 have been amended.

Overview of the Office Action

Claims 1-4 and 8 stand rejected under 35 U.S.C. 102(b) as anticipated by published U.S. Patent Application, Publication No. US 2002/0117265 (*Mayet '265*), or published U.S. Patent Application, Publication No. US 2002/0117251 (*Mayet '251*).

Claims 1 and 4-8 stand rejected under 35 U.S.C. 102(b) as anticipated by published U.S. Patent Application, Publication No. US 2001/0023736 (*Mayet '736*).

The Examiner did not specifically address the patentability of claims 5-7 in the final Office Action.

Summary of Subject Matter Disclosed in the Specification

The following descriptive details are based on the specification. They are provided only for the convenience of the Examiner as part of the discussion presented herein, and are not intended to argue limitations which are unclaimed.

The specification discloses a device for fabricating a tire reinforcement made from a cord on a toroidal form, i.e. core 1. The toroidal form is mounted on a frame, and is operable to rotate about a first rotation axis. *See* Figs. 1 and 3. In one embodiment, the device includes an

actuation mechanism having an arm 131. *See* Fig. 1. A cord laying element 16 is mounted on the lower end of arm 131. The arm 131 as well as the cord laying element 16 is rotated in a cyclic, back and forth movement about a second rotation axis to lay the cord on the toroidal form. The actuation mechanism is carried on a support 130, which is slidably mounted on a rail 132 that allows a linear, back and forth movement of the support 130 in a plane which is parallel to the first rotation axis of the toroidal form and perpendicular to the second rotation axis. The linear movement of the support 130 is synchronized with the cyclic, back and forth movement of the cord laying element 16 to produce the overall movement shown in Fig. 2. The linear movement of support 130 has a directional component parallel to the first rotation axis of the toroidal form. *See* Fig. 1.

The linear movement of support 130 renders the device suitable for fabricating a tire reinforcement on a wide toroidal form.

Compared with prior art devices suitable for fabricating a tire reinforcement on a wide toroidal form, this device is relatively simple, lightweight and compact without substantially increasing the radial dimension of the device. *See* paragraph [0005].

Descriptive Summary of the Prior Art

Mayet '265

Mayet '265 relates to a device for fabricating a tire reinforcement made from a cord on a toroidal form. In one embodiment, the device comprises an actuation mechanism 3^{1a} that employs a vertically positioned, rotatable first auxiliary arm 3D^{1a}, and a horizontally positioned first arm 31^{1a} which is attached to the first auxiliary arm 3D^{1a}. A second auxiliary arm 32^{1a} is

suspended from the main arm 31^{1a} and supports a cord laying element 6^{1a} at its lower end. The first auxiliary arm 3D^{1a} is supported by a support 30^{1a}. See Fig. 1 of *Mayet '265*.

Mayet '251

Mayet '251 also relates to a device for fabricating a tire reinforcement made from a cord on a toroidal form. In one embodiment, the device has an actuation mechanism 3 that employs a vertically positioned, rotatable first arm 3D, and a second arm 31 which is attached to the first arm 3D. A cord laying element 6 is provided at the lower end of the second arm 31. The first arm 3D is borne by a support 30. See Fig. 1 of *Mayet '251*.

Mayet '736

Mayet '736 also relates to a device for fabricating a tire reinforcement made from a cord on a toroidal form. In one embodiment, the device has an actuation mechanism that employs three auxiliary arms. First and second auxiliary arms 31^{1a}, 34^{1a} are parallel to and spaced from each other. In addition, each of the first and second auxiliary arms 31^{1a}, 34^{1a} has one end rotatably connected to a support 30^{1a}, and the other end rotatably connected to a main arm 32^{1a}. The main arm 32^{1a}, in turn, is rotatably connected to one end of a third auxiliary arm 33^{1a}. A cord laying element 6^{1a} is mounted on the other end of the third auxiliary arm 33^{1a}. See Fig. 1 of *Mayet '736*.

Arguments

Independent Claim 1

Claim 1 has now been amended to recite “wherein said actuation mechanism is mounted on said frame via said support for linear movement therewith in a plane parallel to said first rotation axis of said toroidal form and perpendicular to said second rotation axis, said linear

movement being synchronized with said cyclic, back and forth movement, and said linear movement having a component directed parallel to said first rotation axis of said toroidal form” (amendments underlined).

Support for these amendments can be found, for example, in Figs. 1 and 3 and in paragraph [0024]. Applicant submits that the amendments to Claims 1 and 2 do not raise any new issues that would require further consideration and/or search by the Examiner.

Claim 1, as herein amended, is not anticipated by *Mayet '265*, *Mayet '251* or *Mayet '736* because none of the applied references discloses, either expressly or inherently, the above-quoted recitations of Claim 1.

In particular, in each of *Mayet '265*, *Mayet '251* and *Mayet '736*, the double arrow "Q" of the support is in a plane that is shown as parallel to a second rotation axis about which the cord laying element is rotated. As such, the double arrow "Q" is not in a plane perpendicular to the second rotation axis. None of the applied references therefore discloses or suggests that the support is moved in a plane perpendicular to the second rotation axis.

In sharp contrast, Claim 1 now recites “wherein said actuation mechanism is mounted on said frame via said support for linear movement therewith in a plane ... perpendicular to said second rotation axis”. Claim 1 accordingly distinguishes over the reference teachings.

In the “final” Office Action, the Examiner states that in the embodiment shown in Fig. 10 of *Mayet '265*, the first arm 31^{2b} can be slidably adjusted relative to the first auxiliary arm/shaft 3D^{2b}. However, this adjustment is only made during assembly. Once the adjustment is completed, the first arm 31^{2b} is in a fixed position relative to the shaft 3D^{2b} because the first arm 31^{2b} is “immobilized” against further such movement by the end plate 3D2^{2b}. See Fig. 10; and paragraphs [0073] and [0074] of *Mayet '265*. The same is true with respect to *Mayet '251* (“The

oscillating arm 31...is immobilised by means of an end plate 3D2”). *See* Fig. 1; and paragraph 0023] of *Mayet '251*. In any event, adjustment of the first arm 31^{2b} relative to the shaft 3D^{2b} and the frame is most certainly not “synchronized with said cyclic, back and forth movement” of the cord laying element, as is currently recited in applicant’s Claim 1. Claim 1 distinguishes over the cited art for this reason as well.

It is further noted that in the embodiments shown in Figs. 7, 10 and 11 of *Mayet '265*, the orientation of the first arm 31^{2a}, 31^{2b}, 31^{3a} continuously changes while the shaft 3D^{2a}, 3D^{2b}, 3D^{3a} is rotated. Thus, neither *Mayet '265* nor any other applied reference discloses or suggests that the support moves linearly in a plane that is parallel to the first rotation axis of the toroidal form and perpendicular to the second rotation axis of the cord laying element, as is currently recited in Claim 1. Again, Claim 1 distinguishes over the cited prior art.

In view of these differences, withdrawal of the 35 U.S.C. 102(b) rejection of Claim 1 as anticipated by *Mayet '265*, *Mayet '251* or *Mayet '736* is deemed appropriate and is therefore respectfully requested.

The fundamental differences discussed above between the claimed invention and *Mayet '265*, *Mayet '251* or *Mayet '736* additionally render the claimed invention clearly unobvious thereover under 35 U.S.C. 103(a).

Dependent Claims 2-8

Claims 2-8 depend, either directly or indirectly, from Claim 1 and, thus, each is deemed allowable therewith.

Claims 2-8 also include features that serve to still further distinguish the claimed invention over the applied references.

As noted above, the Examiner did not specifically address the patentability of claims 5-7 in the "final" Office Action; those claims, as noted above, are in any event deemed allowable as dependent from an allowable independent claim.

Conclusion

Based on all of the above, it is respectfully submitted that the present application is now in full and proper condition for allowance. Prompt and favorable action to this effect, and early passage of this application to issue, are once more solicited.

Should the Examiner have any comments, questions, suggestions or objections, the Examiner is requested to telephone the undersigned in order to facilitate an early resolution of any outstanding issues.

Respectfully submitted,

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Dated: June 12, 2006